



**MARYLAND**

# Raising Awareness: A Brief Overview of Maryland's Antidegradation Policy and Current Case Studies





# The Clean Water Act

## A Three-Legged Stool

- Designated Uses
- Criteria (narrative and numeric) to Support Uses
- Antidegradation Policy



# Maryland's Antidegradation Regulations

- Water quality better than the minimum criterion shall be maintained (COMAR 26.08.02.04 & .04-1)
- Defines assimilative capacity for high quality waters.
- Discharge(s) to waters designated as high quality require an antidegradation review.



# Maryland's Antidegradation Regulations, continued

"Discharge" means:

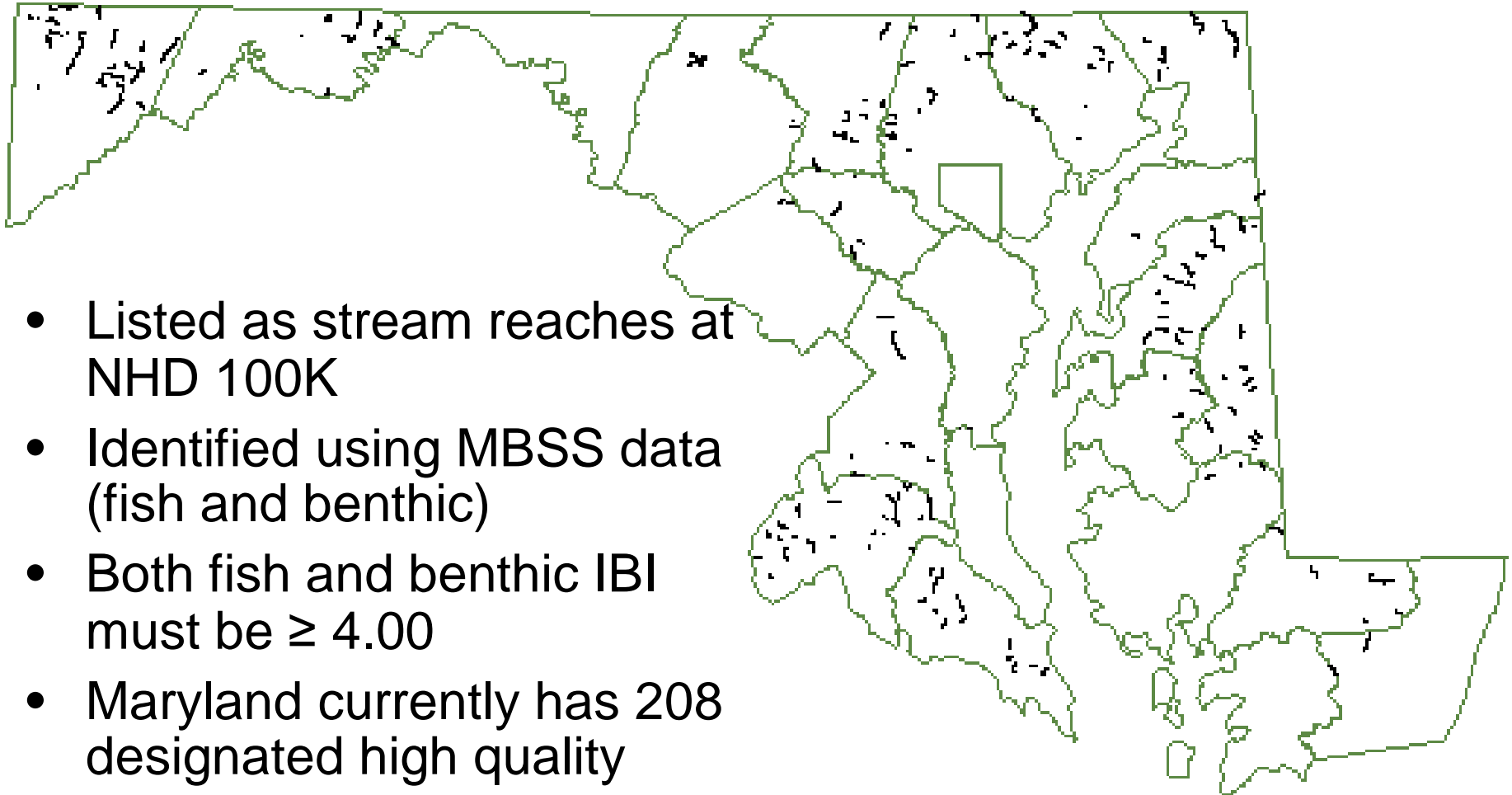
- The addition, introduction, leaking, spilling, or emitting of any pollutant to waters of this State; or
- The placing of a pollutant in a location where the pollutant is likely to pollute.



# Antidegradation Review

- Must consider a **no discharge alternative(s)**
- Must consider **discharge modifications** to limit the use of the assimilative capacity
- Must perform a **social and economic justification** If discharge will degrade a Tier II segment

# Maryland's Current High Quality (Tier II) Waters



- Listed as stream reaches at NHD 100K
- Identified using MBSS data (fish and benthic)
- Both fish and benthic IBI must be  $\geq 4.00$
- Maryland currently has 208 designated high quality stream segments



# Tier II Precedents - Western Maryland

– Hoyes Run

– Fifteen Mile  
Creek 3

– Puzzley Run



# Hoyes Run: Small Stream at Risk

Keystone Quarry  
(Proper)

Crabtree Bottom Rd

Sang Run Rd

Hoyes Run Rd

Hoyes Run 1

WISP Ski Resort

- TII Hot Spot
- TII Streams
- TII Catchment
- Streams
- Roads



# Hoyes Run: Unique Concerns

- Trout Unlimited Interest: 3 naturally reproducing trout species
- \$250,000 Invested in stream restoration
- Multiple Threats:
  - WISP Resort Development and assoc. storm water
  - Quarry Discharges and mining permit
  - Groundwater Appropriation
- Fractured Rock Aquifer



Photo courtesy of MD DNR



**Spring 2007**



*Hoyes  
Run*

*Fork Run*

Photo courtesy of MD DNR



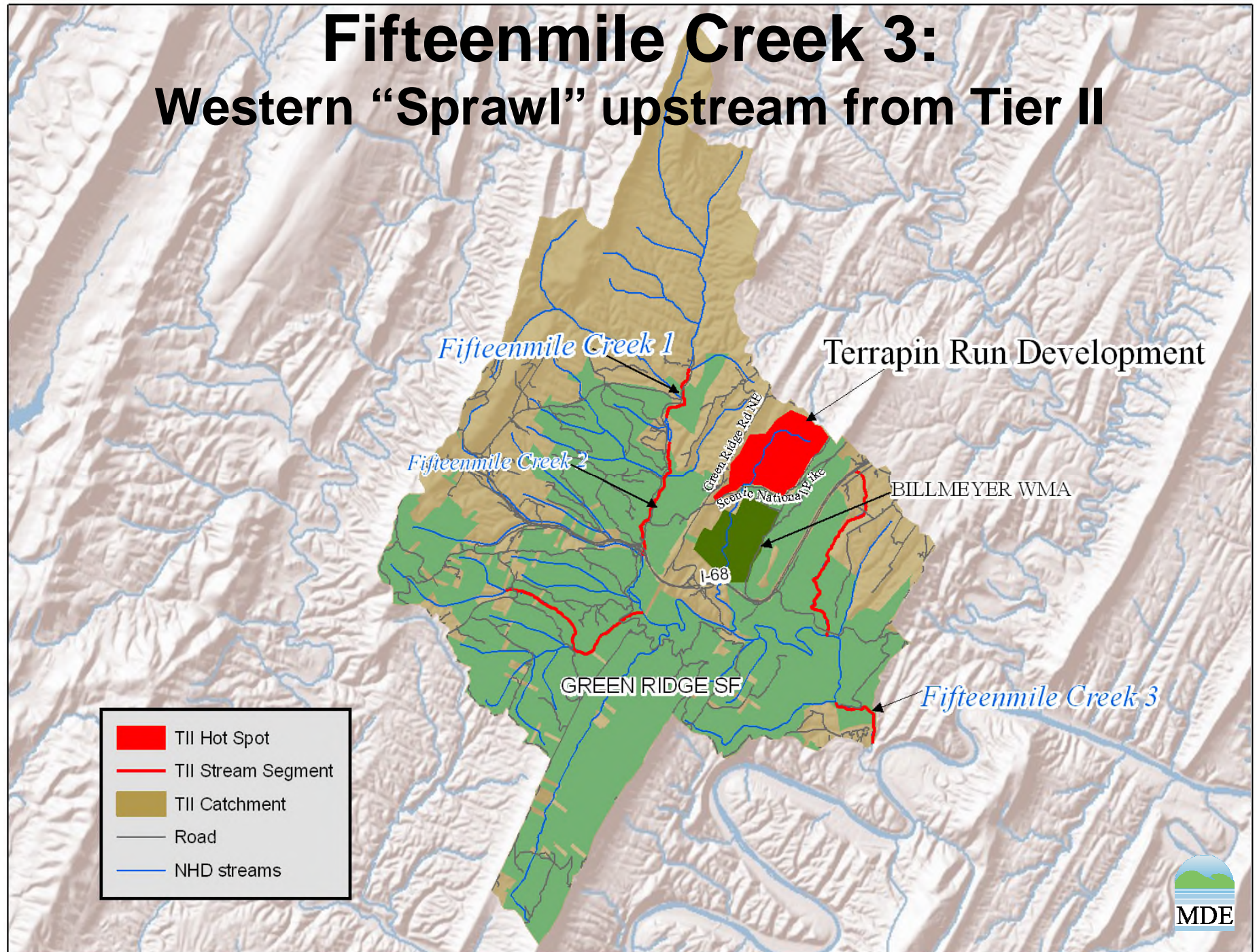


# Draft Appropriation for Wisp Ski Resort

- 60,000 gpd limit for 300 units (applied for 500,000 to support 2500 units)
- Stream flow data collection required (July-Oct)
- Secure backup water source to completely replace Hoyes Run wells if necessary
- Additional monitoring required when using back up
- Upon permit renewal, data review required (including biological data)



# Fifteenmile Creek 3: Western “Sprawl” upstream from Tier II





# Fifteenmile Creek 3: Unique Concerns

- Smart Growth/planning consistency and associated Legal Challenges
- State Forest and Wildlife Management Area
- Downstream Tier II protection
- Intermittent stream
- Nature Conservancy Interest (Harperella)
- MDE denied both the Water and Sewer Plan amendment and water appropriation permits for the project



High Quality-Cold  
Water Fishery  
(Whites Creek)

Pennsylvania

# Puzzley Run: Interstate Interests

Keyser's Ridge WWTP

Keyser's Ridge  
Community and  
Business Park

Puzzley Run I

FLOW

National Pike

Holiday Rd

Spring Valley Farm Ln

National Fwy

- TII Hot Spot
- TII Stream Segment
- TII Catchment
- Streams
- Roads





# Puzzley Run: Unique Concerns

- Interjurisdictional water
  - Limits written into current permit reflect a combination of MD and PA requirements to protect the high quality cold water fishery in PA.
- Already has a permit (expires in 2010).
- Expansion of Municipal NDPES discharge.



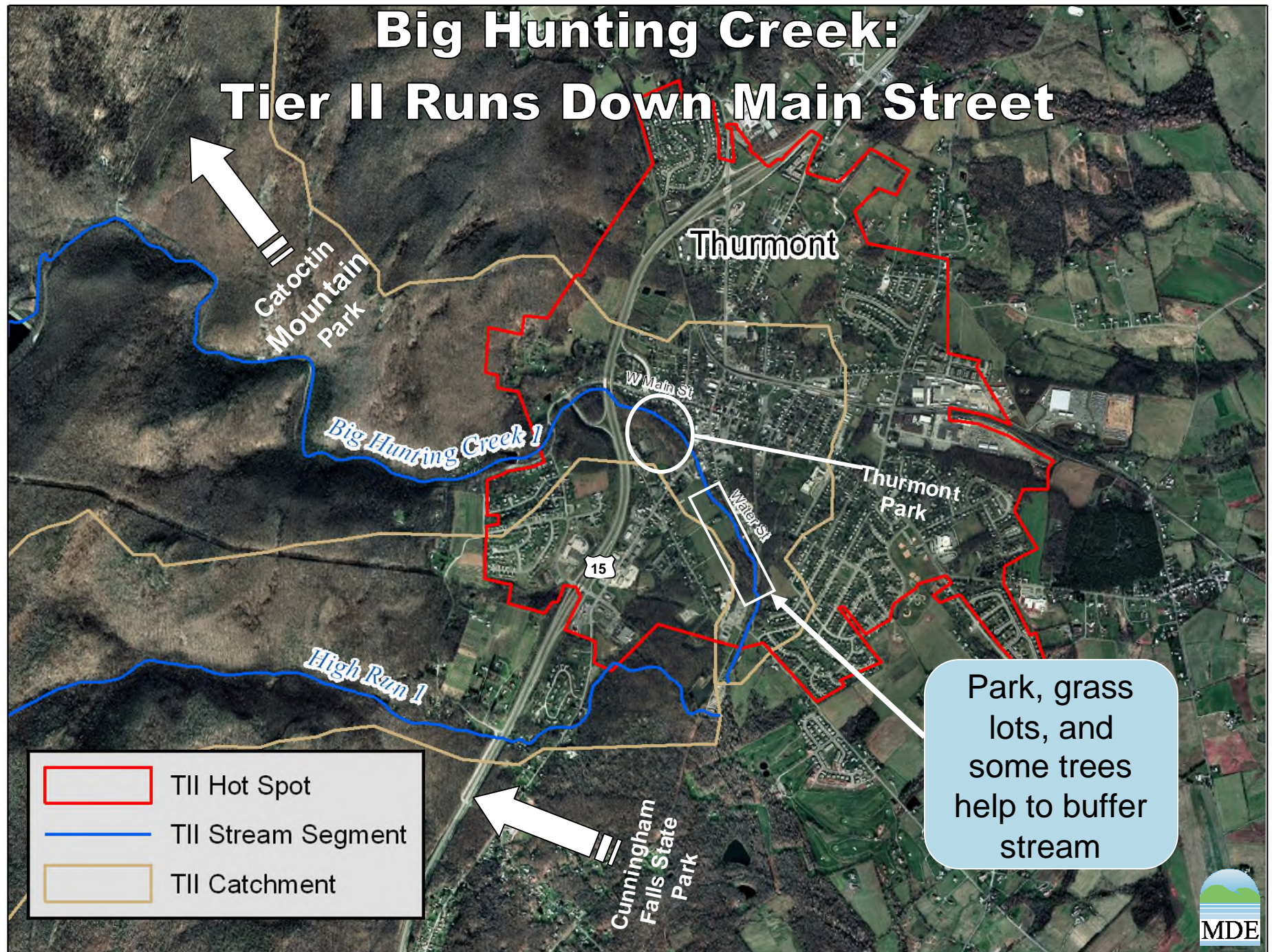
# Tier II Precedents - Central Maryland

– Big Hunting  
Creek

– Gillis Falls 1 & 2



# Big Hunting Creek: Tier II Runs Down Main Street





# Municipality and Tier II Together

Mostly  
forested  
Headwaters  
and  
upstream  
confluence

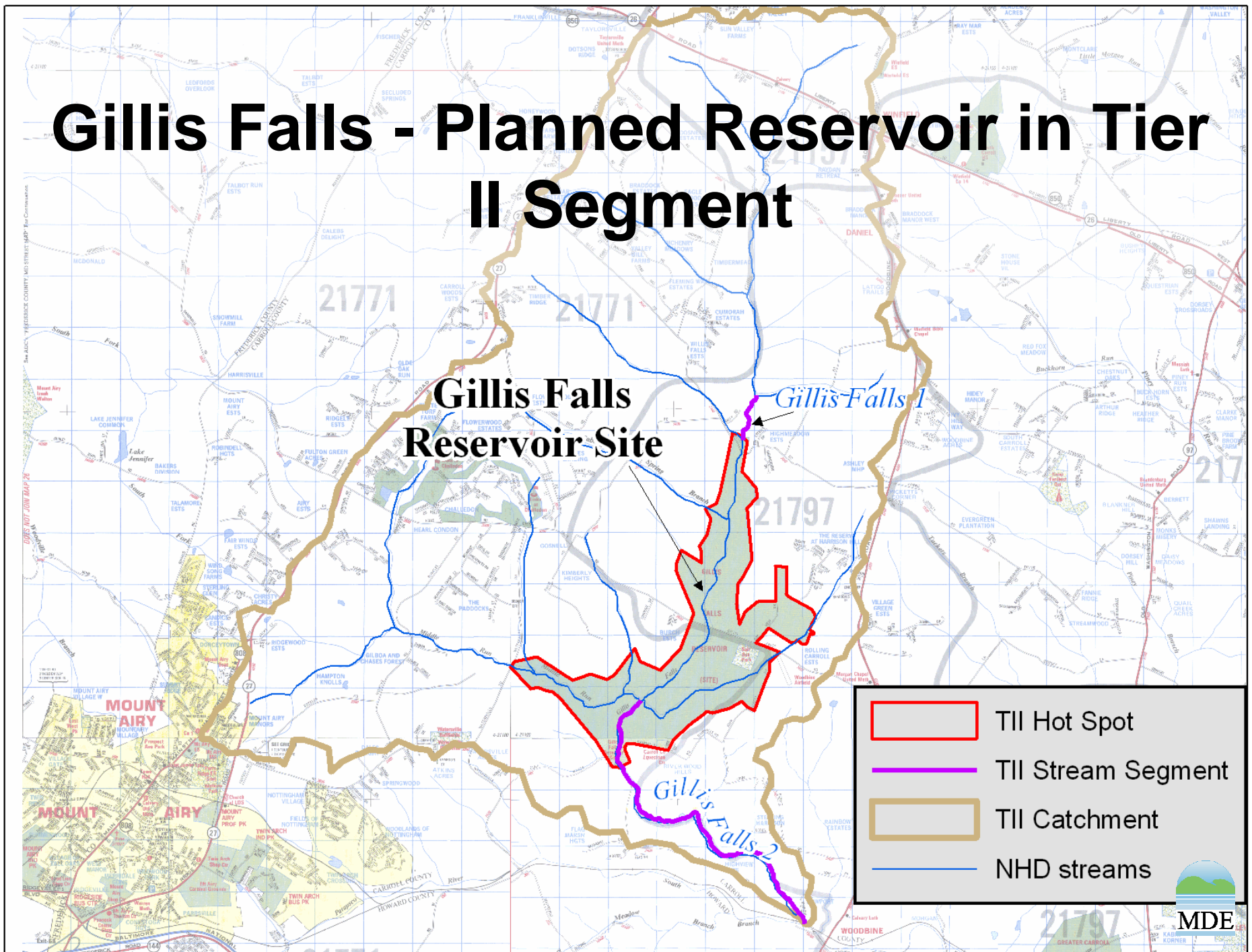
Downstream  
impacts of  
urban  
development?





# Gillis Falls - Planned Reservoir in Tier II Segment

Gillis Falls  
Reservoir Site





# Gillis Falls: Unique Concerns

- Carroll County Planning officials understand the issue
  - They have independently created their own 'catchments' for all of their Tier II streams
- MDE is currently researching the protection of drinking water reservoirs through Tier II designation
- Potential SEJ



# Tier II Precedents - Southern Maryland

- Saint Mary's River
- Old Womans Run



# Saint Mary's River: Zoning Change

St. Mary's PFA

Johnson Property  
(St. Mary's Crossing)

Other Saint Mary's Crossing LLC  
Properties

ST MARYS  
RIVER  
STATE PARK

*Saint Mary's River 1*

- TII Stream Segment
- NHD streams
- TII Hot Spot
- TII Catchment
- SM PFA



# Saint Mary's River: Unique Concerns

- Down-zoning
- Inconsistency with County Master Plan
- Proposed expansion of PFA
- State Park Land



# Old Womans Run: Cross County Connector





# Old Womans Run: Unique Concerns

- Actively engaged watershed group.
- DNR Fisheries services have stated that the “Mattawoman is the best most productive estuary in the Bay”
- MDE and USACE Involvement (404 permit, WQC, & Wetlands License).
- Watershed management plan was created in 2003 for the Mattawoman which estimated that planned development would increase pollution over 30%



A topographic map of Maryland showing elevation contours and water bodies. Three distinct regions are highlighted with colored outlines: a red outline in the northwest, an orange outline in the north-central area, and a yellow outline in the south-central area. The text "Antidegradation Implementation Outreach and Tools" is centered over the map.

# Antidegradation Implementation Outreach and Tools



# Outreach to Local Planning Directors

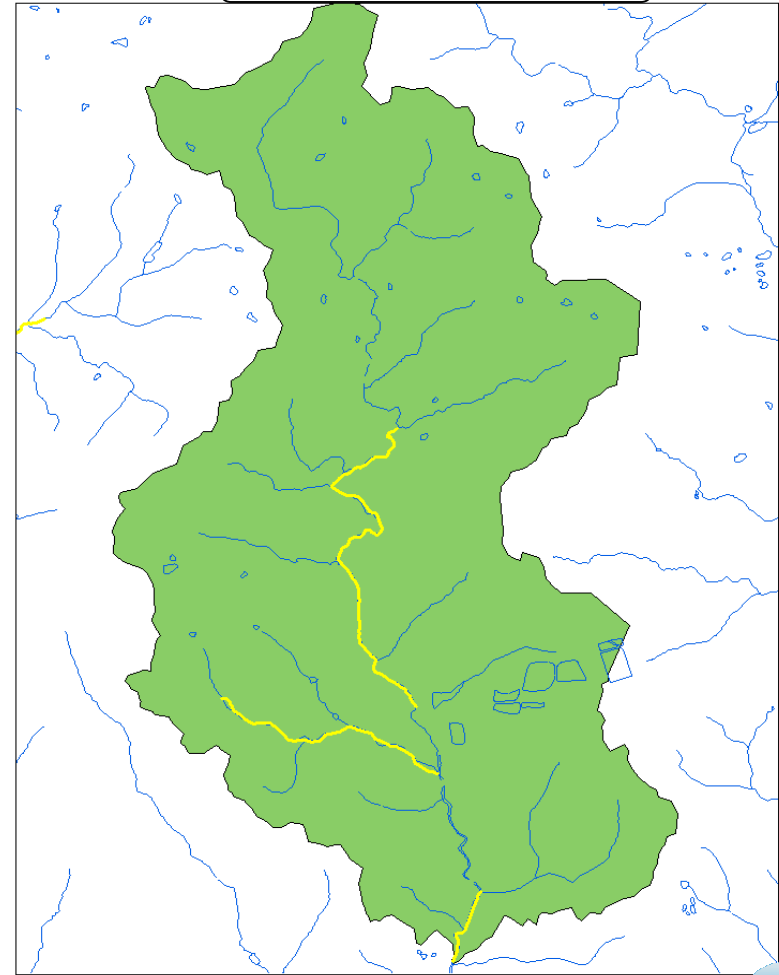
In the Fall of 2007, MDE conducted targeted outreach to all local planning directors on Tier II regulations and segments and created a [Web site](#) dedicated to Tier II



# Maryland's GIS Layers for High Quality Waters

- Catchment or land drainage approximation for each Tier II stream
- All Tier II related information is in a geodatabase format to facilitate sharing

Principio Creek





# MDE Developments

- Considering requiring Antidegradation Reviews for water appropriations.
- Holding internal meetings among permitting programs to standardize/enhance Tier II screening.
- Drafting implementation guidance for the regulated community.
- Healthy Waters Initiative devoted to protection.
- Developing Tier II prioritization tools.
- Monitoring to establish new Tier II segments.
- Assistance with WREs to incorporate Tier II concerns.



# Questions?

For more information regarding Maryland's  
Antidegradation policy contact **John Backus**,  
Environmental Standards and Assessment Program

410-537-3965

(jbackus@mde.state.md.us)



Backgrounds courtesy of ESRI ARCSERVICES